

AD _____

Award Number: DAMD17-00-1-0509

TITLE: Interdisciplinary Research Training in Breast Cancer

PRINCIPAL INVESTIGATOR: Ruth McCorkle, Ph.D., R.N.

CONTRACTING ORGANIZATION: Yale University
New Haven, Connecticut 06520-8047

REPORT DATE: July 2003

TYPE OF REPORT: Annual

PREPARED FOR: U.S. Army Medical Research and Materiel Command
Fort Detrick, Maryland 21702-5012

DISTRIBUTION STATEMENT: Approved for Public Release;
Distribution Unlimited

The views, opinions and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision unless so designated by other documentation.

20040105 050

REPORT DOCUMENTATION PAGEForm Approved
OMB No. 074-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE July 2003	3. REPORT TYPE AND DATES COVERED Annual (1 Jul 2002 - 30 Jun 2003)	
4. TITLE AND SUBTITLE Interdisciplinary Research Training in Breast Cancer			5. FUNDING NUMBERS DAMD17-00-1-0509	
6. AUTHOR(S) Ruth McCorkle, Ph.D., R.N.				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Yale University New Haven, Connecticut 06520-8047 <i>E-Mail:</i> ruth.mccorkle@yale.edu			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Medical Research and Materiel Command Fort Detrick, Maryland 21702-5012			10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution Unlimited				12b. DISTRIBUTION CODE
13. ABSTRACT (Maximum 200 Words) The purpose of this predoctoral and postdoctoral training program is to prepare clinical researchers who will impact the care of women with breast cancer or women who are at risk for breast cancer. The predoctoral program prepares the beginning researcher with the knowledge and skills necessary to develop and test clinical interventions. This program builds on the Yale School of Nursing's current doctoral program. Postdoctoral training prepares the investigator to conduct more complex studies which involve an interdisciplinary perspective or the need for sophisticated analytic techniques. The research training program in breast cancer has completed its second year and all positions have been filled with outstanding trainees. Faculty across disciplines are collaborating and joint initiatives have been established. These activities are enhancing our ability to contribute to the knowledge base related to the care of women with breast cancer or women at risk to develop breast cancer.				
14. SUBJECT TERMS Research Training, Breast Cancer, Pre and Postdoctoral, Nursing				15. NUMBER OF PAGES 16
				16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT Unlimited	

Table of Contents

Cover	1
SF 298	2
Table of Contents.....	3
Introduction.....	4
Body	4
Key Accomplishments	15
Reportable Outcomes.....	15
Conclusions	16
References	N/A
Appendices	N/A

INTRODUCTION

The purpose of this predoctoral and postdoctoral training program is to prepare clinical researchers who will impact the care of women with breast cancer or women who are at risk for breast cancer. The predoctoral program prepares the beginning researcher with the knowledge and skills necessary to develop and test clinical interventions. This program builds on the Yale School of Nursing's current doctoral program. Postdoctoral training prepares the investigator to conduct more complex studies that involve an interdisciplinary perspective and more sophisticated analytic techniques.

The research-training program has completed its third year. The two program directors, Drs. Ruth McCorkle and Michael DiGiovanna, met quarterly with their administrative team, which includes three additional researchers in breast cancer: Drs. Tish Knobf, Beth Jones, and Elizabeth Bradley. Dr. Knobf is a tenured Associate Professor at the Yale School of Nursing and has developed a program of research related to chemotherapy induced menopause. Dr. Jones is an Associate Professor in the Yale School of Epidemiology and Public Health and her research is related to factors associated with the incidence of breast cancer in black and white women. Dr. Elizabeth Bradley, an Associate Professor in the School of Public Health, has developed a program of research related to End-of Life care with cancer patients. Dr. Donald Lannin, Professor of Surgical Oncology, was also added to our core faculty to work directly with one of our pre-doctoral trainees and he attended our spring meeting with the administrative team.

BODY

Task 1: Completed.

Task 2: Ongoing.

Courses developed and approved previously were offered during the academic year and graduate students in other disciplines enrolled. Extensive research training experiences in breast cancer have been implemented with the program faculty, including Drs. McCorkle, Di Govanna, Knobf, Jones, and Bradley. Assignments are based on interest of the trainee and match with the mentor's program of research. The predoctoral trainees, Pamela Potter and Yiyuan Sun, work directly with Drs. McCorkle, Knobf, and Lannin. Both pre-doctoral trainees are actively involved with their dissertation research. Dr. Schulman Green works directly with Drs. McCorkle, Knobf and Bradley. Dr. Kenefick works directly with Drs. McCorkle, Knobf, Jones, and DiGovanna.

Task 3: Completed.

Task 4: Completed.

Task 5: Ongoing.

A formalized system to select and monitor trainees continues. Drs. McCorkle and Knobf meet monthly to review the trainees' progress. Trainees are matched with research mentors based on their interests and mentors' program of research. Trainees meet weekly with their mentors and participate in their research activities while concurrently developing their own research proposals. Trainees submit their goals annually and they are peer reviewed as part of the reappointment process.

Task 6: Ongoing.

There have been a number of activities that the faculty and trainees have participated in that were initially established as a part of the Yale Cancer Center. These have included monthly grand rounds that are co-sponsored by this training program, and monthly meetings of the Breast Cancer Group, under Dr. DiGiovanna's leadership. The trainees have also participated in monthly meetings of the pre and postdoctoral trainees in the School of Nursing. Although the focus of this latter group is not solely on breast cancer, all of the participants are studying vulnerable populations with other chronic diseases and their discussions related to methodological and analytical issues are relevant. As part of the training program, several nationally recognized researchers were asked to present their research at the Yale Cancer Center Grand Rounds. These included: Dr. Alfred Marcus from the AMC Cancer Center in Colorado; Dr. Cathy Bradley from Michigan State University; and Dr. Frances Lewis from the University of Washington School of Nursing. Dr. Marcus has done extensive research on the use of telephone counseling in psychosocial oncology using the Cancer Information Line. Dr. Bradley's research is related to race, socioeconomic status, and breast cancer treatment and survival. Dr. Lewis' research is related to testing interventions designed to impact the families' responses to managing cancer and its treatment. Individual and informal gatherings were held with these researchers during their visits. Journal club meetings were held with all three visiting professors. In addition, Dr McCorkle and the pre and post-doctoral trainees attended the national DOD Era of Hope scientific meeting in Florida in September, 2002. Three of the trainees presented posters at the meeting.

Task 7: Ongoing.

We have been successful in recruiting one pre-doctoral and one postdoctoral trainee. We are currently reviewing our applicants for year 04 and will make our final selection at our August administrative team meeting.

Predoctoral. Pamela Potter. Appointed July 1 2001-2st year trainee.

As a fourth year, full time doctoral student, Pamela Potter was re-appointed because of the outstanding progress she has made and the importance of her work. Ms Potter's dissertation is designed to test the effects of a complementary therapy (Reiki) on the relief of psychological distress experienced by women undergoing a breast biopsy. Dr. Ruth McCorkle is Ms. Potter's academic and research advisor. Subjects for Ms. Potter's research are recruited from the Surgical Outpatient Department of Yale New Haven Hospital under the supervision of Dr. Donald Lunnin, Chief of Surgical Oncology.

Key accomplishments of Ms. Potter

As part of the training program. Ms. Potter has completed the following courses this past academic year:

Fall 2002

NURS 991 Dissertation Advisement

Spring 2003

NURS 991 Dissertation Advisement

Summer 2003

NURS 991 Dissertation Advisement

Reportable Outcomes of Ms. Potter

Publications:

- Potter, P. (2002). Complementary and Alternative Medicine Research Review: Reiki and Functional Recovery for Patients Poststroke. *PNI/Complementary Therapies Special Interest Group Newsletter*, 11(2), <http://onsopcontent.ons.org/Publications/SIGNewsletters/pni/pni11.2.html>.
- Potter, P. (2003). What are the distinctions between Reiki and therapeutic Touch? *Clinical Journal of Oncology Nursing*, 7(1) Integrated Care, 89-91 (Reprinted with permission).
- Potter, P. (2003). What are the distinctions between Reiki and therapeutic Touch? *Clinical Journal of Oncology Nursing*, 7(1) Integrated Care, 89-91 (Reprinted with permission).
- Potter, P. (2002). What are the distinctions between Reiki and therapeutic Touch? *PNI/Complementary Therapies Special Interest Group Newsletter*, 10(3), 2-3.

Posters:

- Potter, P. (2003, February). The crisis of breast biopsy: Designing a clinical Trial of a complementary therapy. Poster presented at the Seventh National Conference on Cancer Nursing Research, San Diego, CA. [Best Doctoral Student Poster-- Competitive Award]
- Potter, P. (2003, April). Testing the Feasibility of Using Reiki to Ease Distress in Women Undergoing Breast Biopsy. Poster presented at the Comprehensive Cancer Conference, Washington, DC.

Presentations:

- Presenter, Identifying Evidence-Based Complementary Therapies. Connecticut Nurses' Association Convention, Hartford, CT, fall 2002.
- Co-Instructor, with Professor Ann Ameling "Alternative and Complementary Therapies" a one credit hour course with an "evidence-based" focus on complementary therapies. YSN, fall 2003
- Moderator, Potter, P. Dissemination of CAM Cancer Research. Comprehensive Cancer Care Conference, Washington, DC, April 2003.

Grants Awarded:

- The Effects of Reiki on the Psychological Distress of Women Undergoing a Biopsy. Received from the American Cancer Society. \$15,000.00
Small Grant for conducting the Breast Biopsy and Distress research study, from Oncology Nursing Foundation and Orthobiotech. \$8,500.

Grant Proposals Submitted:

- Submitted to the DOD for the BCRP2 Clinical Research Nurse Award. 06/2003 for A post doctoral study of a Reiki intervention for women newly diagnosed with breast cancer, a crossover design clinical trial pilot to specifically address immunobiological outcomes.

National Meetings and Networking:

Ms. Potter attended the Seventh National Conference on Cancer Nursing Research, San Diego, CA, February, 2003. She also attended the Comprehensive Cancer Care Conference: Integrating Complementary and Alternative Therapies with Mainstream Care, April 2003. Ms. Potter participated in Cancer Grand Rounds at YNHH with Dr. Marcus, Dr. Bradley, and met with Dr. Lewis related to her work with families of patients with breast cancer. Ms. Potter is an active member of the Oncology Nursing Society and the Psychoneuroimmunology and Complementary Therapy Special Interest Group, and Co-Editor of the ONS PNI/CT SIG Newsletter.

Dissertation Research:

Ms. Potter has successfully defended her dissertation proposal, a clinical trial of a complementary therapy (Reiki) versus conventional care control for relieving the psychological distress experienced by women undergoing a breast biopsy. She is currently in the subject recruitment and data collection phase of this study. She expects to graduate May 2004.

Pre-doctoral. Yiyuan Sun. Appointed July 1 2002-1st year trainee.

As a second year, full time doctoral student, Yiyuan Sun was selected from among three applicants for the DOD training program. Ms. Sun has completed the required course work. Ms. Sun is in the process of finalizing her dissertation proposal, entitled "Symptom Disclosure by Women with Breast Symptom(s)." Dr. Tish Knobf is the chair of her dissertation committee, with Drs. McCorkle and Groce serving as faculty members of the committee. Two nationally recognized researchers in breast cancer and qualitative research, Professor Noreen Facione and Professor Joan Haase also participated in reading Ms. Sun's Dissertation proposal. Professor Noreen Facione is the professor at School of Nursing, Loyola University Chicago. Dr. Joan Haase is a professor at the Indiana University School of Nursing. Ms. Sun met weekly with Dr. Knobf and Dr. McCorkle and communicated with other team mentors regularly.

Key Accomplishments of Ms. Sun

As part of the training program. Ms. Sun has completed the following courses this past academic year:

Fall 2002

HPA 570	Cost Effectiveness Analysis
NURS 751	Advanced Concepts in Women's Health, with emphasis on breast cancer
NURS 903	Measurement of Clinic Variables
NURS 907	Dissertation Seminar
NURS 915	Doctoral Research Practicum I
NURS 961	Health Policy for Public & Private Sectors

Spring 2003

GHD 580	Intro to Qualitative Research
NURS 819	Health Promotion and Disease Prevention in Adult Continuum
NURS 905	Creating Method: Issue in Nursing Research
NURS 907	Dissertation Seminar
NURS 915	Doctoral Research Practicum II
NURS 941	Linking Research & Health Policy

Reportable Outcomes of Ms. Sun

Pending Publication:

- Knobf, M Tish, Sun, Yiyuan. (under review) Symptoms Associated with Primary Radiotherapy for Breast Cancer. Cancer Nursing

Presentations:

- Symptom Disclosure by Women with Breast Symptom(s). ONS Research Short Course, April, 2003, 28th Annual ONS congress, Denver, CO.

Grants Awarded:

- ONS Research Short Course Award to attend the annual congress and pre-congress workshop, funded by NCI.

Grant Proposals Submitted:

- Submitted to the DOD for the Clinical Research Nurse Award (NURSE), 04, 2003

National Meetings and Networking:

Ms. Sun attended the Oncology Nursing Society 28th Congress, Denver, Colorado, May 2003, where she met with nationally known breast cancer researchers Drs. Noreen Facione and Victoria Champion. Ms. Sun also met with other breast cancer experts and discussed the decision making process of disclosing breast symptoms. Ms. Sun also participated in the Yale Cancer Center Grand Rounds.

Dissertation Proposal:

Symptom Disclosure by Women with Breast Symptom(s): The purpose of this study is to explore how women with breast symptom(s) decide to disclose their problems either to lay people or health care providers. Early detection and treatment are important strategies that can reduce the chance that a woman will die from breast cancer. However, early detection and treatment are contingent on the willingness of a woman taking her first step to seek care. Although most of the women with breast cancer seek care in time, at least one third of women wait to see the doctor for 3 months or more. Women who delay seeking care are more likely to be diagnosed with later staged breast cancer, increased tumor size and more positive nodes, which are associated with significantly lower 5-year survival rates and poorer quality of life.

Given the fact that little is known about the decision making process of symptom disclosure among women with breast symptom(s), the proposed study will use a qualitative methodology. Maximum variation sampling method will be used to recruit participants who are undergoing diagnostic evaluation. The sample will be drawn from three sites: a woman's health center, a gynecologic clinic, and a surgical clinic in southern New England. A one time in-depth interview will be scheduled at a time and place convenient for the participants. Each interview will take 30-45 minutes and participants will be encouraged to call if they have additional information to tell. Constant comparison method will be used to analyze the data by the trainee and the mentor separately. A selected group of participants will be asked to review the study results for validation.

The findings of this study will help health providers understand women's responses to their breast symptoms and prepare them to assist women in making timely decisions about symptom disclosure. The knowledge of symptom disclosure will not only extend the theoretical base of nursing through empirical investigation, but also provide insight and new direction for clinical practice and cancer control in breast cancer research.

Postdoctoral Trainees

Post-doctoral. Dr. Dena Schulman-Green. Appointed January 1, 2001, 2nd year trainee.

A gerontologist specializing in end-of-life care, Dr. Schulman-Green's program of research has focused on factors affecting palliative care in breast cancer, including care trajectories, i.e. transition from curative to palliative care, patient/family decision-making; and clinicians' education, attitudes, and practice of palliative and hospice care.

Since her training began, Dr. Schulman-Green has worked with Dr. McCorkle to further her research agenda. Dr. Schulman-Green has continued to work closely with Program Faculty member Dr. Elizabeth Bradley, of the Yale University School of Medicine's Department of Epidemiology and Public Health, on various research projects. She is also a member of a research team led by Dr. Sidney Bogardus, who is the Medical Director of the Adler Geriatric Assessment Center.

Key Accomplishments of Dr. Schulman-Green

- Completion of a research study on nurses' communication of prognosis and implications for hospice referral, which was presented at the Annual Meeting of the Gerontological Society of America and which has been submitted for publication to the *American Journal of Critical Care*.
- Completion of data analysis on a research study on delayed hospice referral, for which 2 manuscripts are currently in preparation for submission to *Social Science and Medicine* and *The Journal of Palliative Care*.
- Completion of a quantitative and qualitative evaluation and report of the Palliative Care Services at Yale-New Haven Hospital commissioned by the Yale Cancer Center. Two related manuscripts are currently in preparation.
- Ongoing data collection and analysis for a study to develop and test an instrument to improve clinician-patient communication on health-related goals.
- Publication of 6 research articles related to oncology and palliative care (*Journal of the American Medical Association*, *Journal of Palliative Care*, *Journal of Terminal Oncology*, *American Journal of Hospice and Palliative Care*, *Southwest Journal on Aging*, *Omega: Journal of Death and Dying*) with 1 article in review by the *American Journal of Critical Care*, and 7 additional articles in preparation.
- Completion of 7 presentations primarily related to oncology and palliative care at professional conferences, 1 presentation at the Yale Program on Aging, and 1 presentation at the Yale Cancer Center Prevention and Control Conference.
- Attendance at meetings of the Palliative Care Resource Group at Yale-New Haven Hospital, and of the Palliative Care in the ICU Group.
- Attendance at rounds of the Yale Cancer Center and Yale Medical Grand Rounds.
- Attendance at meetings of the Yale Program on Aging Seminars.
- Networking with professionals and organizations involved in breast cancer treatment, palliative care, oncology, and aging at formal events and informal meetings.
- Attendance at 3 seminars on grant-writing, offered by the Yale School of Nursing, Yale School of Medicine, and the Association for Gerontology in Higher Education.
- Attendance at monthly post-doctoral meetings and bimonthly pre- and post-doctoral meetings.

Reportable Outcomes of Dr. Schulman-Green

Publications:

- Schulman-Green, D. (2002). Physicians' feelings about themselves and their patients. *Journal of the American Medical Association*, 278(9), 1114.
- Schulman-Green, D. (2002). Psychosocial issues in palliative care: Physicians' self-perceived role and collaboration with hospital staff. *Journal of Terminal Oncology*, 1(1), 1-7.
- Bruce, E. & Schulman-Green, D. Planning for the Future of Long-Term Care in Massachusetts. *Southwest Journal of Aging*, 18(1), 17-20.
- Schulman-Green, D. Psychosocial issues in palliative care: Physicians' self-perceived role and collaboration with hospital staff. *American Journal of Hospice and Palliative Care*, 20(4), 34-40.
- Schulman-Green, D. Coping mechanisms of physicians who routinely work with dying patients. *Omega: Journal of Death and Dying*. (in press)
- Schulman-Green, D. How do physicians learn to provide palliative care? *Journal of Palliative Care*. (in press)

Manuscripts in review:

- Schulman-Green, D., McCorkle, R., Cherlin, E., Johnson-Hurzeler, R., & Bradley, E. Nurses communication of prognosis and implications for hospice referral: A study of nurses caring for terminally ill, hospitalized patients. *American Journal of Critical Care*.
- Kenefick, A.L. & Schulman-Green, D. Caring about pain in cognitively impaired nursing home residents. *International Journal for Human Caring*.

Manuscripts in preparation:

- Schulman-Green, D., McCorkle, R., Cherlin, E., Johnson-Hurzeler, R., & Bradley, E. Reasons for delayed hospice enrollment as identified by primary caregivers. *Social Science and Medicine*.
- Schulman-Green, D., McCorkle, R., Cherlin, E., Johnson-Hurzeler, R., & Bradley, E. Clinicians' best practices in end-of-life care. *Journal of Palliative Care*.
- Schulman-Green, D. & McCorkle, R. An expansion of Institute of Medicine (IOM) barriers to excellent palliative care: Reports of palliative and non-palliative physicians. *Journal of Palliative Medicine*.
- Harris, D., Xue, Y., Schulman-Green, D., Czaplinski, C., Donovan, C., Loseth, D., & McCorkle, R. Pain assessment and management on an inpatient medical oncology unit: The role of unlicensed staff.
- Xue, Y., Schulman-Green, D., Harris, D., Czaplinski, C., Donovan, C., Loseth, D., & McCorkle, R. Pain knowledge and attitudes of healthcare providers on an oncology unit.
- Kenefick, A.L. & Schulman-Green, D. The Model of Sequential Trials: Managing pain in the context of cognitive impairment. *Research in Nursing and Health*.

National Meetings, Presentations, and Networking:

Dr. Schulman-Green has attended/presented at the following national meetings where she has had the opportunity to network with experts in end-of-life care.

- Schulman-Green, D. Providing palliative care to older adults: Physicians' attitudes, behavior, and education. Presented at the 29th Annual Meeting of the Association for Gerontology in Higher Education, St. Petersburg, FL, February 2003.
- Miltiades, H. & Schulman-Green, D. Rooting out ageism: Instructional methodologies for

the classroom. Presented at the 29th Annual Meeting of the Association for Gerontology in Higher Education, St. Petersburg, FL, February 2003.

- Schulman-Green, D., McCorkle, R., Cherlin, E., Johnson-Hurzeler, R. & Bradley, E.H. Nurses' communication of prognosis and implications for hospice referral. Paper presented at the 55th Annual Scientific Meeting of the Gerontological Society of America, Boston, MA, November, 2002.
- Waters, L., Kolb, K.N., Sung, T.H., Schulman-Green, D., Fuller, J. & Lynn, J. End-of-life care in a changing world: A continuum of perspectives. Symposium presented at the 55th Annual Scientific Meeting of the Gerontological Society of America, Boston, MA, November, 2002.
- Schulman-Green, D., Waters, L., Kasl, S., Glass, T., Schaie, K.W., & O'Hanlon, A. Student Mentoring: Beyond academic advising to comprehensive guidance. Workshop presented at the 55th Annual Scientific Meeting of the Gerontological Society of America, Boston, MA, November, 2002.
- Schulman-Green, D. Providing palliative care to older adults: Physicians' attitudes, behavior, and education. Presented at the 29th Annual Meeting of the Association for Gerontology in Higher Education, St. Petersburg, FL, March, 2003.
- Schulman-Green, D. End-of-life care in medical education: How prepared are physicians to provide palliative care? Presented at the 28th Annual Meeting of the Association for Gerontology in Higher Education, Pittsburgh, PA, February, 2002.
- Schulman-Green, D., Cotter, J., Silverstein, N., & Waters, L. Teaching 101: Teaching skills for the excellent teacher or teaching assistant. Workshop coordinated for the 28th Annual Meeting of the Association for Gerontology in Higher Education, Pittsburgh, PA, February, 2002.
- Schulman-Green, D. How prepared are physicians to address psychosocial and spiritual aspects of palliative care? Presented at the 54th Annual Scientific Meeting of the Gerontological Society of America, Chicago, IL, November, 2001.

Dr. Schulman-Green attended the Boston College End-of-Life Conference held in Boston in March 2003 as a participant. She has also submitted 3 presentations for future conferences:

- Naik, A.D., Schulman-Green, D., Bradley, E.H., & Bogardus, S.T. Older persons' willingness and capacity to use a goal-setting instrument. Submitted to the 25th Annual Meeting of the Society for Medical Decision-Making, Chicago, IL, October, 2003.
- Schulman-Green, D. & Miltiades, H. Cultural attitudes and health care practices related to illness and end-of-life care. Submitted to the 30th Annual Meeting of the Association for Gerontology in Higher Education, Richmond, VA, February, 2004.
- Schulman-Green, D., McCorkle, R., Cherlin, E., Johnson-Hurzeler, R. & Bradley, E.H. Reasons for delayed hospice enrollment as identified by primary caregivers. Submitted to the Clinical Team Conference and Exposition on Hospice and Palliative Care, Las Vegas, NV, March, 2004.

Dr. Schulman-Green regularly attends seminars held by the Yale Program on Aging and the Yale Cancer Center, where she has developed relationships with experienced researchers in end-of-life care, including Drs. Terri Fried and Stanislav Kasl. Dr. Schulman-Green was invited to discuss her work, "Physicians' attitudes and behavior providing palliative care to older adults" at the Program on Aging in April, 2002. She was invited to present her work, "Health Professionals'

Self-Reported Palliative Care Practices in Connecticut and Massachusetts" in May, 2003 at the Yale Cancer Center Prevention and Control Conference.

Grant Proposals:

Dr. Schulman-Green has submitted 4 grant proposals, all studies focusing on patients with breast cancer who are transitioning from curative to palliative care:

- Schulman-Green, D., Principal Investigator. Knowledge of treatment options and care planning among Connecticut women with advanced breast cancer. Submitted to the Yale Cancer Center/Connecticut State Breast Cancer Research Awards.
- Schulman-Green, D., Principal Investigator. Age differences in end-of-life decision-making among women with advanced breast cancer. Submitted to the Yale University Pepper Center Age-Related Research Program.
- Schulman-Green, D., Principal Investigator. Women's role in the management of advanced breast cancer. Submitted to the Yale University School of Nursing Center for Self-Management Interventions for Populations at Risk.
- Schulman-Green, D., Principal Investigator. Women's role in the management of advanced ovarian cancer. Submitted to NIH.

Post-doctoral. Dr. Amy L. Kenefick, Appointed October 1, 2002- 1st year trainee.

Dr. Kenefick's interests include cognitive function and the quality of life in women with breast cancer. She is transitioning from women's health and geriatrics to breast cancer. Her first year's work has included transitioning into the field of breast cancer, and establishing new relationships with breast cancer experts and researchers. Dr. Kenefick is working under the direct supervision of Dr. McCorkle. She has collaborated with Dr. Schulman-Green and a doctoral student in gerontology, Cheryl Chen, in the preparation of manuscripts related to pain and geriatric oncology.

Key Accomplishments of Dr. Amy Kenefick

Dr. Kenefick is a co-investigator with Dr. Tish Knobf in a study of cognitive function and induced menopause related to breast cancer treatment. Data collection instruments and procedures have been finalized and the Human Subjects application submitted. Dr. Kenefick and Dr. Beth Jones of Yale School of Epidemiology and Public Health have begun an ongoing collaboration with a focus on racial disparities in breast cancer. Dr. Kenefick has met with Dr. Naomi Rogers of the Yale School of Medicine regarding their mutual interest in the history of women's health, most particularly breast cancer.

- Dr. Kenefick is completing a literature review related to cognition and chemotherapy/estrogen/breast cancer/menopause. In addition, she is conducting a secondary analysis of breast cancer data included in a larger, randomized, controlled study of advanced practice nursing intervention under Dr. McCorkle's supervision.
- Attendance at rounds of the Yale Cancer Center and Yale Medical Grand Rounds
- Attendance at 3 seminars on grant-writing, offered by the Yale School of Nursing and the Yale School of Medicine
- Attendance at the Yale Cancer Center, Cancer Prevention and Control Group and Breast Cancer Group
- Attendance at the monthly YSN post doctoral meetings
- Participation at the DOD pre/post doctoral weekly meetings
- Attendance at the Center for Excellence in Chronic Illness Care Journal Club Seminars
- Attendance and networking at the 7th Annual Nursing Research Conference, Oncology

Nursing Society, San Diego CA

Reportable Outcomes of Dr. Kenefick

Publications:

- Chen, C; *Kenefick, AL*; Tang, ST; McCorkle, R. (in press). Utilization of comprehensive geriatric assessment in cancer patients.
- *Kenefick, AL* (2003). On Propagation. *International Journal for Human Caring*, 7(1): 576-7. See also Johns, C. (2003). Commentary on Propagation. *International Journal for Human Caring* 7(1): 58.

Manuscripts in review:

- Jones, BA; *Kenefick, AL*; and Zinggeler, JM. (under review) Delay, race and stage at diagnosis in women with breast cancer. *American Journal of Public Health*.
- *Kenefick, AL* and Schulman-Green, D. (under review). Caring about pain in cognitively impaired nursing home residents. *International Journal for Human Caring*
- *Kenefick, AL* and Schulman-Green, D. (under review). The Model of Sequential Trials: managing pain in the context of cognitive impairment. *Research in Nursing and Health*.

Grant Proposals Submitted

Relationship of Neurocognitive Function to Breast Cancer Treatment and Induced Menopause. Clinical Research Nurse Award, Department of Defense Breast Cancer Research Program, *Amy L. Kenefick* (PI), \$200,000.

This proposal for a clinical nurse research award builds directly on Dr. Kenefick's extensive clinical background in women's health and primary care by facilitating the fellow's transition from geriatric research to breast cancer research. In addition to preparing the fellow for a career in breast cancer research, it will facilitate interdisciplinary collaboration between the University of Connecticut and Yale University. While providing didactic experience in advanced research methodology, it allows the fellow to have sustained and varied experiences in the field of breast cancer research and patient care. The training plan will promote the development of the fellow's program of research, leading to advanced skills in research design, data management and analysis, and in working with interdisciplinary research teams to improve outcomes of care for patients with breast cancer.

The area of inquiry for the research aspect of this proposal is the relationship among neurocognitive function, breast cancer chemotherapy, and menopause. A particular emphasis of the training program is on the methodology of longitudinal research, an area that was not included in the fellow's doctoral program. Longitudinal studies are clearly indicated at this point in the development of knowledge about neurocognitive function in women being treated for breast cancer. While there has been some speculation about the role of chemotherapy induced menopause in neurocognitive function, there have been no longitudinal studies with appropriate baseline and repeated measures that will provide meaningful information about neurocognitive status over time. Women, themselves, express distress over perceived neurocognitive changes yet there is little known about the subject. The research project will be valuable preparation for an independent career as a breast cancer researcher not only because it is an opportunity to become an expert in longitudinal research methods but also because it will set the stage for the development of interventions needed to support quality of life in women with breast cancer. Identifying the contribution of induced menopause to symptom distress in women undergoing treatment will be another fruitful area of inquiry in breast cancer research. This research fits into the larger picture of the problem of adverse breast cancer treatment effects and the quality of life of patients and survivors. Clarifying the relationship of neurocognitive function to chemotherapy

and induced menopause will promote the development of treatment protocols in which the probability of cure can be maximized while the extent of neurocognitive dysfunction can be minimized.

Cognitive function and induced menopause. Lance Armstrong Foundation. M. Tish Knobf (PI), Christy Marshuetz and Amy Kenefick (Co-Investigators)

This is a pilot descriptive study of cognitive function, physical and psychological symptom distress, and quality of life in 25 premenopausal women who receive adjuvant breast cancer therapy and 25 premenopausal women who have a surgical induced menopause. Subjects will be told that the study involves questions about their memory, concentration and attention, their symptoms, and their quality of life. No control group will be involved. Seventy-five percent will be white while twenty-five percent will be members of racial or ethnic minority groups. Data will be collected prior to surgery or the first chemotherapy treatment, at 6-8 weeks, 6 months, and 9 months later. Instruments include: an investigator-designed demographic and medical data form, subscales of the Wechsler Adult Intelligence Scale, MOS SF-36, Symptom Distress Scale, Breast Cancer Prevention Trial Symptom Checklist, Profile of Mood States(POMS), Center for Epidemiological Studies-Depression Scale (CES-D), and the Spielberger State-Trait Anxiety Inventory (STAI). This study will provide data describing cognitive function over time, determine the influence of induced menopause on cognitive function, and assess the relationship of cognitive functioning to physical and psychological symptoms and quality of life outcomes. The findings from this study will translate directly to clinical practice for patient teaching and direct future research in developing interventions to enhance adaptation of cancer survivors during and after therapy.

Key Accomplishments of Trainees who have completed the two-year Training Program

Predoctoral. Dr. Shiu-yu Lee (appointed 2000-2002) has completed and successfully defended her dissertation study, entitled "Treatment Decision-Making for the Primary Treatment of Early-Stage Breast Cancer in Chinese American Women" under the supervision of Dr. Tish Knobf. Drs. McCorkle also served as a faculty member of the committee. Two nationally recognized researchers in breast cancer, Professor Frederick Li and Professor Lesley Degner also participated in mentoring Ms. Lee's research program. Professor Frederick Li is the professor at Harvard University School of Medicine and a Chinese research scientist with expertise in breast cancer genetics and cancer epidemiology. Dr. Lesley Degner is a professor at the University of Manitoba in Canada and an internationally recognized researcher on preference of participation and treatment decision-making in women with breast cancer. Ms. Lee is in the process of preparing publications and submitting them. . She also presented a poster entitled "*Validation equivalence and cultural relevance of Chinese translated instruments for breast cancer treatment decision making*" by Lee, Shiu-yu C. & Knobf, M. Tish at the 2002 DOD Era of Hope Meeting, Orlando, FL., September, 2002.

Postdoctoral. Dr. Donna Clemmens (appointed 2000-2002) accepted a tenure track position as an Assistant Professor at New York University, New York City, January, 2003. Dr. Clemmens is nationally recognized for her work in Maternal and Child Health, and has expanded her field of study to adolescents and mothers with breast cancer. Dr. Clemmens presented a poster entitled "*Teenagers' experiences with their mothers' breast cancer*." Era of Hope: Breast Cancer Research Program Meeting, September, 2002, Orlando, Florida.

This past year, Dr. Clemmens completed a funded research study, *Adolescent children and mothers with breast cancer* as the PI. Funding was obtained from the Oncology Nursing Foundation and Genetech, \$20,000.00, an Outcomes Research Fellowship grant. The purpose of the study was to increase the understanding of adolescent daughters' experiences with a maternal diagnosis of breast cancer. The aim of this study was to describe the experiences of adolescent daughters from their perspective, in living with and communicating about their mothers' diagnosis of breast cancer. Being told about their mothers' breast cancer caused all 11 adolescent study participants to reflect upon the meaning of motherhood and their relationship with their mother. They were all initially shocked and felt saddened and surprised. Most wanted to be near their mothers during treatments or when she was feeling ill or weak, even if this meant just hanging out with her on the bed or watching TV. The most important support for them during the difficult times around being told and waiting during treatments was their open family communication patterns. Most participants also found solace in music and other activities with their peers. Implications for practice and research include counseling women with breast cancer about the importance of being open in their communication with their adolescent children, and with practitioners to include adolescent children in any support groups or discussions about their own coping mechanisms. Future research should explore what cancer centers are doing to support the patients' children, and identify both positive and negative parent-adolescent communication patterns with the goal of designing interventions to strengthen the outcomes for both. Helping adolescents and mothers reframe their relationship around the cancer may allow a growth in their relationship and for the adolescents, a personal growth.

KEY ACCOMPLISHMENTS OF THE PROGRAM

The following activities were accomplished in the third year:

1. Met monthly with core administrative team to plan and complete the work of the training program.
2. Selected trainees for the third year based on established criteria.
3. Implemented and continued a structured process for monitoring trainees' progress.
4. Offered course work within the School of Nursing doctoral program that included content related to breast cancer research to all doctoral students enrolled in the Chronic Illness track.
5. Implemented a long-term plan for recruiting applicants, including minorities.
6. Implemented a postdoctoral training program within the School of Nursing.
7. Implemented mechanisms for collaboration among program faculty and potential other faculty.
8. Identified opportunities for funding research grants of trainees and facilitated submission of proposals to agencies and foundations.

REPORTABLE OUTCOMES OF THE PROGRAM

The following outcomes were achieved:

1. Filled our one predoctoral and one postdoctoral positions with competitive and qualified trainees for the third year.
2. Recruited Dr. Elizabeth Bradley and Dr. Donald Lannin as core faculty in the research-training program.

3. The Connecticut State Department was awarded a Cancer Planning grant by the Center for Disease Control. Dr. McCorkle continues to serve as a member of the Connecticut Cancer Coalition to implement the plan. The plan was developed in collaboration with the Yale Cancer Center, the University of Connecticut, the State Department of Health, and the Connecticut Medical Society. Breast cancer was included as one of the major cancer sites that the state has identified to reduce the burden of cancer in the state. Dr. Knobf was also recently appointed a member of the committee.

CONCLUSIONS

Within the third year of the research-training program in breast cancer, the program directors have filled their two positions with outstanding trainees. Courses in the doctoral program at the Yale School of Nursing have been offered to include breast cancer content. The postdoctoral program has been established within the School of Nursing and included in the bulletin and the School's website. Faculty across disciplines is collaborating and future initiatives are planned. These activities will enhance our ability to contribute to the knowledge base related to the care of women with breast cancer or women at risk to develop breast cancer.